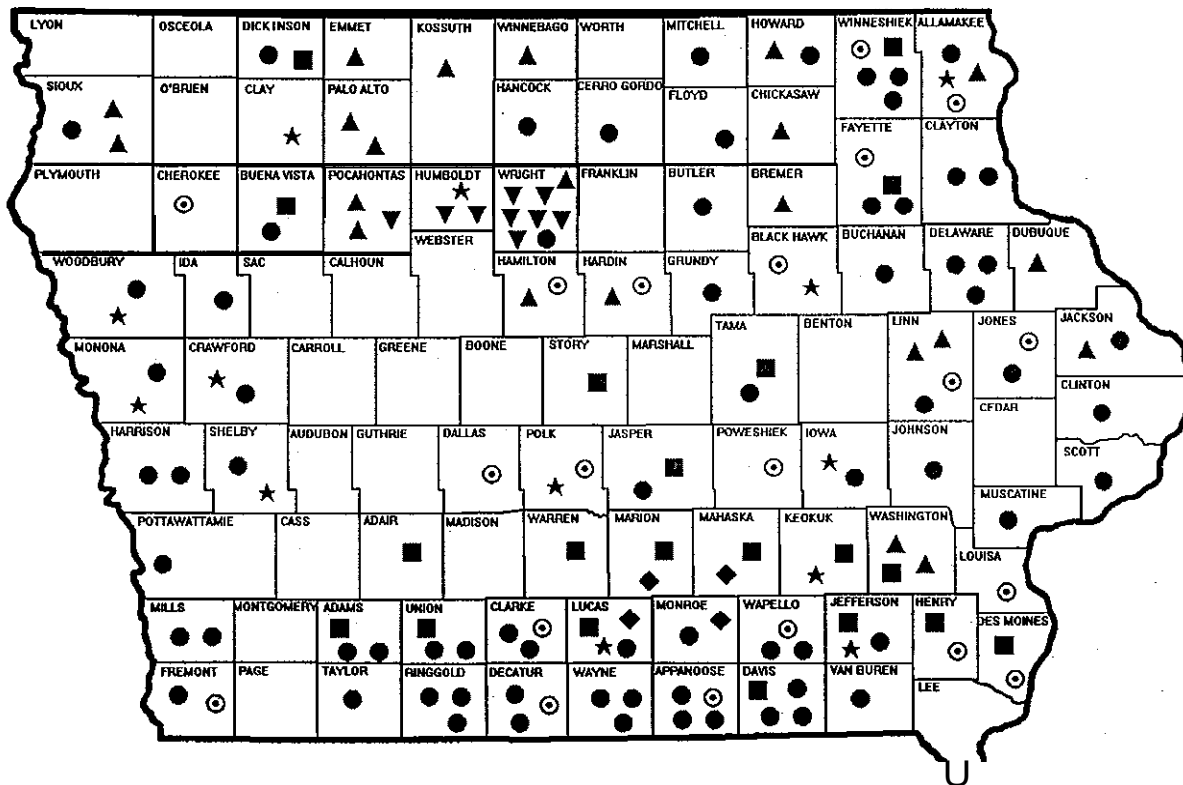


Iowa Department and Land



of Agriculture Stewardship

Division of Soil Conservation January 2001



2000 Conservation Program Summary

- ▼ Ag Drainage Well Closure
- ▲ Fish Kill Restitution
- ◆ Mined Land Reclamation
- Public Lakes Protection

- *Soil Survey Updates
- ⊙ Watershed Development Grants
- Watershed Protection!
Water Quality Projects

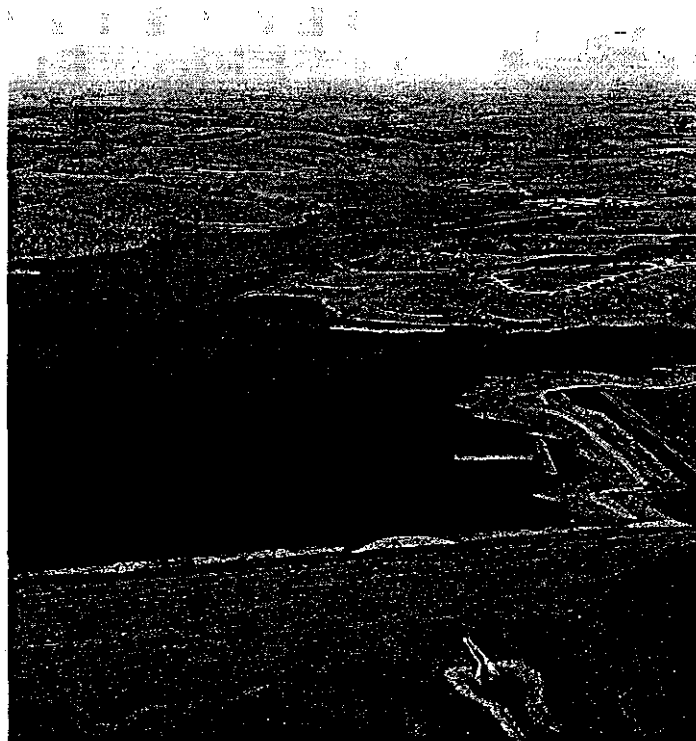
Iowa Watershed Protection Program

Project Description: Provides \$2.7 million to develop and encourage integrated approaches to meet multi-objective water quality protection, flood control, erosion control, recreation, wildlife habitat, and other resource protection issues. It provides funding for watershed solutions to water quality and water management problems that impact local communities, the state, and the country.

Project Need: Iowa needs to coordinate efforts and improve communication among federal, state and local entities charged with solving the broad range of resource management challenges that face our people. The watershed approach has proven to be the most comprehensive, efficient and effective way to solve complex resource management challenges.

First Year Goal: Financially support more than 20 local watershed protection projects that are providing improved flood protection and erosion control, and beginning to address the water quality problems of the state's impaired waters. Assistance will be provided to local communities and soil and water conservation districts for the development of water quality projects and funding applications. The Watershed Task Force will complete its study of Iowa watershed protection efforts, and will report (with recommendations) on the status of watershed protection needs, program capacity, and local initiatives.

What is Being Done: More than 50 watershed and water quality project applications were received and reviewed by cooperating agencies and organizations. Twenty-eight watershed protection projects were initiated or continued. Twenty-nine watershed development grant applications were approved and funding has been transferred to soil and water conservation districts to begin the development work. The Watershed Task Force report is nearing completion. Final preparation of case studies and some text editing remains to be completed before the report will be printed and distributed. 97% of the watershed project funding has been spent or obligated. Remaining funds are being held as insurance against contingencies that may arise as projects are implemented.



For more information, contact
Dean Lemke, 515-281-3963



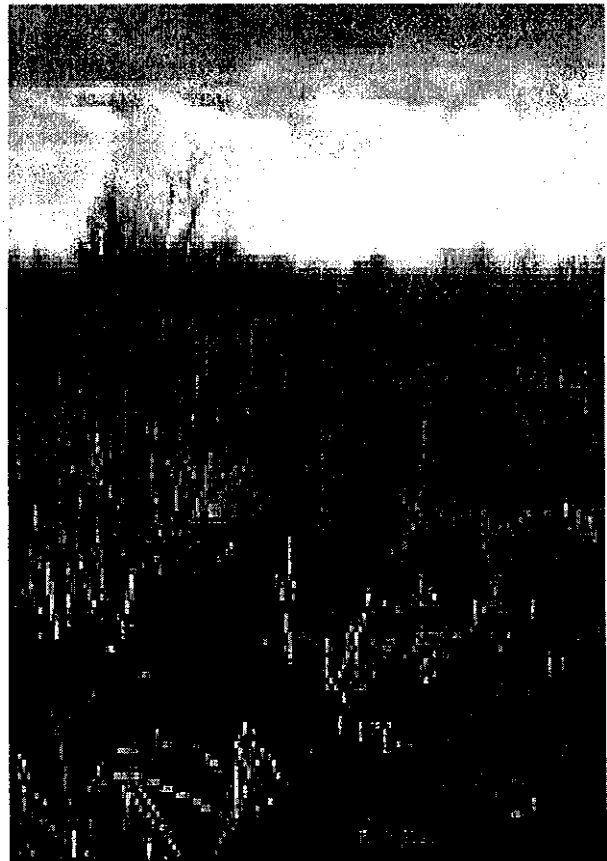
Conservation Reserve Enhancement Program (CREP)

Project Description: Provides \$1.5 million to work with private landowners to restore or construct wetlands where they intercept tile runoff **from** agricultural lands. These wetlands **will** be designed to provide water quality benefits **through** the removal of nitrates and other soluble pollutants **from the** runoff water. They will also be the source of additional wildlife habitat, recreation opportunities, and increased landscape biodiversity. CREP is a cooperative initiative, with state funds leveraging USDA funds to establish long-term contracts or easements **with** landowners.

Project Need: Considerable amounts of nitrates are released into our lakes and streams from intensively tile-drained farmland. These nitrates cause drinking water quality problems, and contribute to nutrient enrichment problems in our lakes, streams **and ultimately the Gulf of Mexico**. Restored and constructed wetlands can remove nitrates **from** these waters, reducing the environmental impact and improving water quality.

First Year Goal: Complete a CREP application, approved by USDA, and successfully initiate the program. It is anticipated **that** contracts and/or construction can be initiated for up to 3,000 acres of wetlands, intercepting drainage from more than 200,000 acres of cropland. **These** wetlands can be expected to remove 50% or more **of the** nitrates that enter them.

What is Being Done: The completed CREP proposal has been submitted to USDA. A team of USDA Farm Service Agency **officials** visited Iowa to review the proposal, meet agency and private organization staff involved in the development and implementation of the program, and begin negotiation of the **final** program budget and funding package. USDA was very favorably impressed with the Iowa CREP concept and the cooperation and support that has been developed for the program. The Environmental Protection Agency has approved a grant to the Division to develop a marketing and outreach component for the program. Initial efforts have begun to introduce **field** staff to the goals **and** objectives of the CREP program to prepare them to initiate implementation of the program when it is approved.



For more information, contact
Dean Lemke, 515-281-3963



Soil Conservation Cost Share Program



Program Description: Provides \$2 million in financial incentives to install conservation practices on private farmlands. These practices provide erosion control to protect the long-term productivity of our soils, and improved water quality by preventing sediment and other **agricultural** pollutants from washing into our lakes and streams. Five percent **of the** funding is directed to private lands in the watersheds of high priority, publicly-owned lakes in the state. Practices in these watersheds provide important protection for municipal water supplies and high-value recreational lakes.

Program Need: **Erosion** control is one **of the** state's highest environmental priorities because soil productivity is the basis of Iowa's economic strength. Reduction of **sediment** damage is crucial to maintain and improve water quality. Sediment and **sediment**-borne chemicals are the reason many lakes and streams are on the state's impaired waters list.

First Year Goal: Provide **permanent** soil conservation protection for 6000 acres of **cropland** statewide and in priority watersheds, and to reduce **annual** soil loss from those acres by up to 50,000 tons per year, now and in the future.

What is Being Done: More than 90% (\$1.8 million) of these cost share funds have been spent. The remaining **funds** have been obligated to landowners, and construction will be completed prior to planting this spring.

For more information, contact
Bill McGill, 515-281-6148



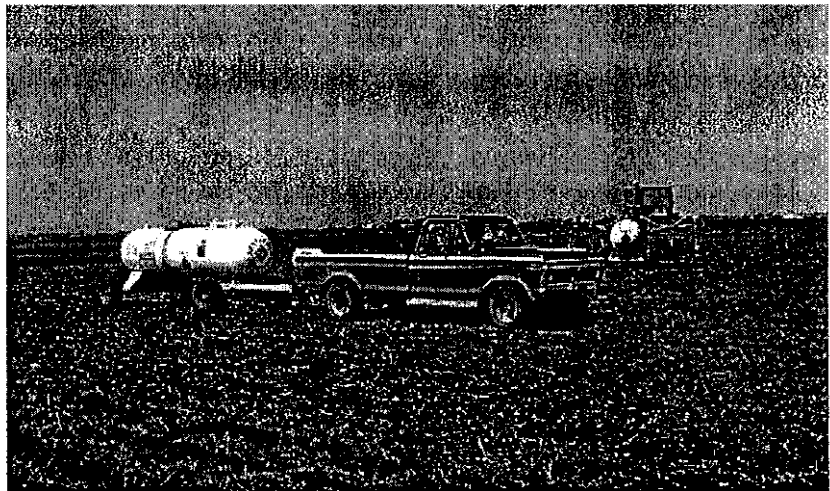
Integrated Farm and Livestock Management Demonstration Program

Project Description: Provides \$850,000 to demonstrate effective and adaptable practices for nutrient and pesticide management, livestock waste utilization, air quality protection, and soil and water conservation. The program will work in partnership with Iowa State University, community colleges, and producers. Environmental **benefits** and economic implications will be featured as a part of each education program and demonstration site. Public information will be a principal element **of the** program.

Project Need: Iowa has a great opportunity to improve agricultural input management. Particular opportunities include integrating livestock waste management and use with environmental protection; enhanced surface and groundwater quality; and rural community and economic development. It is **imperative** that Iowa maintain its position as a leading commodity and livestock producer, improve its environment and quality of life for its people, and address water quality problems related to nutrient enrichment including hypoxia in the Gulf of Mexico.

First Year Goals:

- ◆ Raise producer and public awareness of the importance of input management in relation to environmental protection.
- ◆ Develop a framework for the types of **field** demonstration programs to be implemented next crop season.
- ◆ Begin education programs on input management following harvest this fall.



What is Being Done: A planning team representing state and federal agencies, educational institutions, agribusiness, and farm organizations was established to examine input management, determine opportunities, and develop the framework for the education and demonstration features of the program. Four focus groups of producers met to examine input management and environmental concerns. Statewide, quantitative data is being collected and a socioeconomic survey will benchmark attitudes and perceptions. Approximately 100 **field** demonstrations focusing on nitrogen rates and application will be established across the state this Spring. A subset **of those** demonstration locations will also look at additional environmental aspects of input management. A series of manure utilization and education demonstrations will be conducted this crop year. Integrated farm and livestock management will be featured at the Ag Innovations 2001 Field Day, targeted to host 2000 corn and soybean producers from **across** the state. Development of additional program components will occur over the remaining portion of the fiscal year.

For more information, contact
Jim Gulliford, 515-281-6146.



Buffer Initiative

Project Description: Provides \$1.5 million to accelerate implementation of the continuous sign-up Conservation Reserve Program (CRP) through soil and water conservation district field offices. Through the CRP program, farmers receive payments from USDA to establish riparian buffers, grassed waterways, contour buffer strips, field borders and other buffers on private farmlands. The buffer initiative will provide funding for additional field office staff to prepare materials, contact prospective participants and process applications.



Local government and private, nonprofit organizations are being challenged to provide matching funds to further leverage the initiative. Funds are also being used to provide \$1 00/acre sign-up bonus payments for eligible practices of contour buffer strips, shallow water areas for wildlife, and cross wind trap strips.

Project Need: Conservation buffers adjacent to streams and strategically located in crop fields can reduce soil erosion, improve water quality and stabilize streambanks. Erosion can be reduced by more than 50%. Shallow, subsurface water movement into streams can be improved through the removal of nitrates and some agricultural chemicals. Buffers also provide excellent wildlife habitat and increase landscape biodiversity. More than 30 species of birds have been found in established riparian buffers compared to 8 species in similar unbuffered areas. Fish habitat is improved by providing more diversity in the food chain and reducing sediment deposition.

First Year Goal: Enroll an additional 100,000 acres in the Continuous sign-up Conservation Reserve Program.

What is Being Done: More than \$770,000 of the buffer initiative funds have supported staff and district projects across the state to encourage landowner sign-up for the Continuous Sign-up, Conservation Reserve Program. Districts raised an additional \$280,000 from local and private sources to match and support this effort. More than \$250,000 has been provided to landowners as sign-up bonuses for select buffer practices, complementing similar USDA bonus payments. The Division has obligated \$200,000 of the funds for new Spring initiatives to encourage sign-up for the new USDA Prairie Pothole pilot wetland program, and to match an additional \$100,000 pledged by Pheasants Forever. The remaining funds (approximately \$280,000) will be used for additional support to conservation district sign-up programs and bonus payments on additional eligible sign-up. As of December 15, 2000, total Continuous Sign-up CRP participation in Iowa has exceeded 242,000 acres. The 100,000 acre goal for the year will be met and Iowa continues to be the leading Midwestern state with respect to participants and acres enrolled.

For more information, contact
Jim Gillespie, 515-281-7043



Mine Reclamation Enhancement Program

Project Description: Provides \$50,000 to accelerate development of reclamation plans for permitted coal mine sites abandoned as a result of bankruptcies since 1995. Funding will leverage additional federal assistance to develop reclamation plans and contract documents necessary for achieving closure of these sites. Assistance will also allow Division of Soil Conservation technical **staff** to receive training in the utilization of computer-assisted design (CAD) software.

Project Need: The Division has an opportunity to accelerate the development of needed mine reclamation plans, while simultaneously expanding the technical skills and capabilities of existing professional staff. Project efforts will secure data and resources needed for obtaining ground control and completing reclamation plans necessary for final design and construction.

Completion of these projects will also enhance efforts to achieve reclamation performance goals mutually developed with the Division's federal oversight agency, the USDI's Office of Surface Mining (OSM). Achieving these goals will maintain Iowa's eligibility to receive federal grant funds for the reclamation of abandoned coal sites that were mined prior to 1977.



Goals:

- ◆ Obtain aerial photography and mapping needed to complete planning, bid documents, and construction estimates for **five** forfeiture sites.
- ◆ Enable OSM to design and finalize bid documents for a forfeiture site.
- ◆ Obtain technical training and hands-on experience for Division of Soil Conservation professional staff in computer-assisted design (CAD) applications.
- ◆ Accelerate completion of reclamation plans for all abandoned sites.
- ◆ Eliminate off-site impacts of sedimentation and water quality degradation.

What is being done: Project needs and goals have been established in consultation with federal oversight agency. Technical assistance and training opportunities have been scheduled for this year. Needed mapping, contour intervals and referencing is being developed.

For more information, contact
Kenneth Tow, 515-281-6147



Sustainable Agriculture Grants Program

Project Description: Provides \$50,000 to promote and encourage Iowa farmers and producers to become more aware of and skilled in the preparation and submission of grant proposals to support on-farm applied research and education projects/demonstrations. Funding will be focused on grants for farmers and producers supporting or transitioning to a more sustainable agriculture or alternative agriculture.

Project Need: The Division has an opportunity through this program to provide direct assistance to Iowa producers and farmers which will increase their profitability and provide more environmentally sound decisions and options through on-farm education and applied research. Producers and farmers are seeking sources of funding to diversify and move to more profitable enterprises and practices. This program effort will leverage resources currently available from various public and private sector state, regional, and national grants program opportunities. This program will assist in coordination of programming efforts targeted to producers and farmers between the Division of Soil Conservation and Iowa State University Extension.

Goals:

- ♦ Inventory appropriate grants opportunities available to Iowa producers and farmers within Iowa, the region, and nationally.
- ♦ Design, develop, and distribute grants program brochure to 5000 Iowans.
- ♦ Design and develop a farmer-friendly web site for easy access to real-time grants opportunities.
- ♦ Coordinate awareness of program and implementation opportunities with 10 Iowa commodity and farm organizations.
- ♦ Develop and deliver grants writing workshops to farmer/producer meetings across Iowa.



What is Being Done: Project needs and goals have been established with Iowa State University Extension. Project implementation will occur through the statewide ISU Extension Sustainable Agriculture program. A grants inventory is underway, contact with farm groups has been established, and brochure development is being implemented.

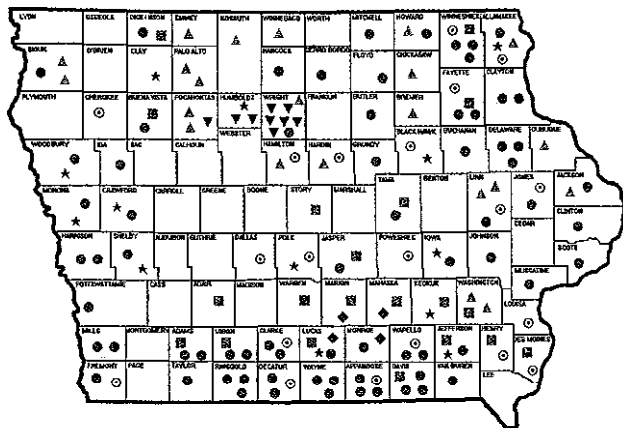
For more information, contact
Jim Gulliford, 515-281-6146





Conservation Program Summary

Soil and Water Conservation 2000



- ▼ Ag Drainage Well Closure
- ▲ Fish Kill Restitution
- ◆ Mined Land Reclamation
- Public Lakes Protection
- ★ Soil Survey Updates
- ⊙ Watershed Development Grants
- Watershed Protection/ Water Quality Projects

WATERSHED PROTECTION

Across the state, watershed protection projects are being conducted to reduce soil erosion, protect water quality, provide flood control and protect other natural resources. Soil and water conservation districts are working with local communities and organizations to meet these multi-objective challenges, leveraging state funds with federal, local and private sources. The watershed approach has proven to be the most comprehensive and efficient approach to address resource protection and water management problems that impact local communities.

Currently 24 watershed protection projects are funded providing financial and technical assistance to carry out project goals. Development of new project applications is being assisted through 29 project development grants.

WATER QUALITY PROTECTION

Water quality protection and enhancement for Iowa's lakes, rivers and streams is the goal of more than 35 water quality projects currently underway across the state. Soil and water conservation districts are the focal point of projects that feature cooperation of land-owners, government, and private organizations. These projects have restored natural reproduction of trout in coldwater streams, protected municipal drinking water supplies, and are beginning to implement solutions to Iowa's impaired water problems.

The Division's REAP funds are being leveraged with EPA Section 319 funds and others to complement land-owner and private expenditures. Important cooperating agencies for these projects include the USDA Natural Resources Conservation Service, the Department of Natural Resources, and Iowa State University.



Photo Courtesy of USDA-NRCS

AG DRAINAGE WELL CLOSURE

High priority agricultural drainage wells are being closed with financial assistance from the alternative drainage system assistance program. A total of 36 wells were closed in FY-2000, and projects to close an additional 44 wells are in progress.

Iowa Department of Agriculture and Land Stewardship

Division of Soil Conservation

Wallace State Office Building

Des Moines, IA 50319

phone: 515-281-5851

Patty Judge, Secretary of Agriculture

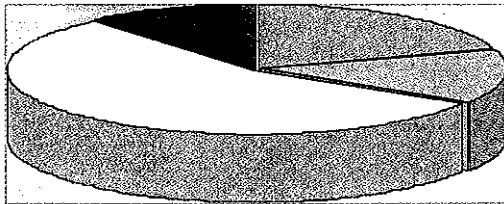
Mary Ann Drish, Chair, State Soil Conservation Committee

Jim Gulliford, Division Director

For more detailed information,
visit our website:
www2.state.ia.us/agriculture/soilconservation/html

SOIL CONSERVATION COST SHARE

Through soil and water conservation districts, the Division's Cost Share Program remains one of the cornerstones of soil and water conservation in Iowa. This year nearly 2400 landowners installed practices protecting more than 27,000 acres with terraces, waterways, structures and basins.



- ▣ Grade Stabilization Structures
- ▣ Terraces
- ▣ Other
- ▣ Grassed Waterways
- Water & Sediment Basins

BUFFER INITIATIVE

Buffer initiative funds support staff in Iowa's soil and water conservation districts encouraging landowners to participate in the USDA Continuous Sign-up, Conservation Reserve Program. Funds also provide sign-up bonuses for select buffer practices complementing similar USDA opportunities. These efforts have helped Iowa remain the leading state in this USDA program.

NO-INTEREST LOANS

Nearly 700 no-interest loans to Iowans have provided an alternative source of financial assistance to establish permanent soil and water conservation practices. Each year, roughly 40 new loans are made with funds received from current loan payments.

FISH-KILL RESTITUTION PROJECTS

Twenty-one districts worked with landowners to restore streams and make watershed improvements in streams where fish kills resulted from pollution releases. Funding has come from Department of Natural Resources penalties assessed against those responsible for the pollution.

CONSERVATION RESERVE ENHANCEMENT PROGRAM (CREP)

Wetlands will improve water quality, provide wildlife habitat, increase landscape diversity, and help address water quality problems as far downstream as the Gulf of Mexico. Leveraged with private and USDA funds, Iowa's CREP proposal will pay private landowners to restore or construct wetlands and buffers located in landscape positions to treat nitrates and other soluble pollutants from agricultural lands. The Iowa CREP is expected to enroll an estimated 9,000 acres over the next three years.



REAP WATER QUALITY PRACTICES

REAP funding provided incentives to 1065 applicants to establish water quality protection practices that protect Iowa's lakes, rivers and streams. More than 6,400 acres were protected by the practices.

MINING RECLAMATION

The Division is reclaiming abandoned coal mines in Marion, Mahaska and Monroe Counties with Department of Interior, Office of Surface Mining funds. These sites were mined prior to 1977 and problems of dangerous highwalls, acid mine drainage and off-site sediment damage are being corrected.

Active coal mine sites in Marion, Mahaska, Lucas and Monroe Counties are being reclaimed with bondmoney forfeited from mining companies following their bankruptcy.

The Division also enforces the State's mining and reclamation laws on more than 1140 minerals operations that produce sand, gravel, gypsum, clay and quarried and crushed stone.

Conservation Partners

IOWA WATERSHED TASK FORCE

Watershed protection needs of Iowa are the focus of the Watershed Task Force. The ideas and contributions of more than 100 Iowans representing local government, organizations, landowners, agribusiness and state and federal agencies are shaping the Task Force recommendations. The Task Force goal is to enhance the organization, integration, local leadership and funding for comprehensive, multi-objective watershed protection.

WETLANDS

Wetlands Working in Watersheds was a one-day workshop that attracted 100 participants including developers and contractors interested in practical applications for urban as well as rural settings. Other wetland activities included the inventory and conservation of unique, groundwater-fed wetlands termed "fens".



Photo Courtesy of USDA-NRCS

INTEGRATED FARM AND LIVESTOCK MANAGEMENT DEMONSTRATION PROJECT

Nitrogen management, reduced tillage, and manure utilization will highlight a new program of crop input education and demonstration by the Division. Field scale demonstrations for the 2001 crop year will be established with farmers in locations across the major watersheds of Iowa, in cooperation with Iowa State University, community colleges, Natural Resources Conservation Service, Agribusiness Association of Iowa and Iowa Soybean Association. The goal of the program is to improve input management to the benefit of both water quality and crop production economics,

SOIL SURVEY

Soil surveys provide a field-based, scientific inventory of soil resources, including soil maps, data about the physical and chemical properties of soils, and information on the potential uses and limitations of each soil. The Division cooperates with county governments, Iowa State University and Natural Resources Conservation Service to map the state's soils. This year, completed soil survey updates were distributed in Jefferson, Lucas and Polk Counties. Editing and compilation work occurred in six counties with field mapping in an additional five.



Photo Courtesy of USDA-NRCS

NEW NUTRIENT MANAGEMENT PRACTICES

The Division cooperates with researchers at Iowa State University to develop and demonstrate improved crop and manure management practices that will reduce environmental impacts from agricultural production. Technologies being developed include the use of wetlands for water quality protection and new nitrogen placement practices.

The use of wetlands for water quality protection can result in the removal of up to 80% of nitrate and 90% of pesticides from subsurface drainage tile water. This technology has become the basis for the new Conservation Reserve Enhancement Program (CREP). New nitrogen placement technologies offer promise of reducing nitrate movement from cropped land by up to 50%.

Strengthening Our Conservation Resources

IOWA ENVIROTHON

Two hundred fifty students, representing 50 teams from across the state, competed in this year's Envirothon. This nationwide competition for high school students tests their knowledge in forestry, aquatics, soils and wildlife. Each team makes a presentation applying the principles of environmental science and policy to a hypothetical problem. The Division collaborated with Conservation Districts of Iowa (CDI) to hold five regional competitions and the state contest. The winner this year, advancing to the final competition in Nova Scotia, was Decorah High School.

STAFF TRAINING

The Division maintains an on-going program to provide staff with better tools to improve the delivery of conservation technical assistance and programs to Iowans. More than 150 field office staff participated in one or more training opportunities including integrated crop management, water quality enhancement, watershed protection, and computer software training to improve customer service.

SWCD COMMISSIONER DEVELOPMENT

Water quality, watershed protection, Farm-A-Syst, impaired waters, urban conservation, and monitoring were some of the many issues discussed at regional and annual meetings of Iowa's soil and water conservation district (SWCD) commissioners. Iowa's 500 elected district commissioners and more than 200 appointed assistant commissioners are responsible for administering soil and water conservation programs across the state. The Division, CDI and NRCS provide commissioner development training for leadership, issue understanding and program implementation.

The Division of Soil Conservation prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status.

Soil and Water Conservation Funding

Current Funding - General Fund

• Operations	6,985,526
Commissioner expense (1M)	\$418,376
• Cost Share	5,500,580
Total	\$12,486,106

Current Funding - Infrastructure Account

• Cost Share	2,000,000
• Watershed Protection Program	2,700,000
• IFLMDP	850,000
• CREP	1,500,000
• Buffer Initiative	1,500,000
• Ag Drainage Well Closure	1,300,000
• REAP (estimated)	2,200,000
Total	\$12,050,000

Proposed New Program Initiative

• <u>Field Office Technicians</u>	535,500
Establish 18 additional technician positions in field offices to provide technical assistance for establishment of soil conservation and water quality practices, CREP wetlands, and local conservation program development and implementation. (includes \$44,000 operation support for training, field equipment and expenses)	
• <u>Field Representative -</u>	46,000
Establish 1 additional field representative to manage IDALS/DSC field office staff, reducing the supervision workload for each field representative from its current level of 59 employees to approximately 50.	
• <u>IFIP Program Manager</u>	46,000
Establish 1 position to manage the additional financial incentive programs of CREP and the buffer initiative, and provide additional field oversight of the current cost-share program.	
• <u>Commissioner Expense</u>	100,000
Provide additional operational expenses of district commissioners as they implement state soil and water conservation programs and provide leadership for local district conservation initiatives.	
• <u>Urban Conservation</u>	272,500
Provide technical assistance for the interaface of expanding urban communities into ag landscapes. (Includes \$40,0000 operation support for training, equipment, expenses and limited demonstration/ education material development.)	
Total	\$ 1,000,000

Conservation Districts of Iowa - State Soil Conservation Committee FY-2002 Soil Conservation Funding Decision Package

Soil and Water Conservation Operations: This funding will provide staff and operational support for soil and water conservation districts to install soil conservation and water quality protection practices, develop an urban/rural interface conservation program, increase operational support for soil and water conservation districts and commissioners, and improve delivery of conservation technical assistance to landowners statewide. The elements of this decision package include:



- | | |
|---|------------------|
| <p><i>Field Office Technicians (18 FTE)</i> - provides funding to place an additional 18 technician positions in field offices to provide technical assistance for the establishment of soil conservation and water quality practices, wetlands of the Conservation Reserve Enhancement Program (CREP), and local conservation program development and implementation. It also includes \$44,000 operation support for training, field equipment and expenses necessary to provide soil and water conservation technical services to landowners.</p> | <p>\$535,500</p> |
| <p><i>Supervisor - Field Representative (Z FTE)</i> - provides funding to establish one additional field representative to manage IDALS/DSC field office staff, reducing the supervision workload for each field representative from its current level of 59 employees to approximately 50.</p> | <p>46,000</p> |
| <p><i>Program Manager - Financial Incentive Program (1 FTE)</i> - provides funding to establish one staff position to manage the additional financial incentive programs of CREP and the buffer initiative, and provide additional field oversight of the current cost-share program.</p> | <p>46,000</p> |
| <p><i>Commissioner Expense</i> - provides additional funding to better meet the operational expenses of district commissioners as they implement state soil and water conservation programs and provide leadership for local district conservation initiatives.</p> | <p>100,000</p> |
| <p><i>Urban Conservation (6 FTE)</i> - provides funding to establish five urban conservation positions in soil and water conservation districts and a program manager to provide technical assistance regarding the interface of expanding urban communities into agricultural landscapes including urban construction erosion control, rural/urban water quality problems, and watershed activities that effect both rural and urban constituents. These positions would provide services to the ten largest urban communities of the state and the agricultural areas surrounding them. It also includes \$40,000 operation support for training, equipment, expenses, and a limited amount of demonstration and educational material development.</p> | <p>272,500</p> |

Total	\$ 1,000,000
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